CLAIMS

What is claimed is:

1. A display device substrate comprising a plurality of display electrodes, and a plurality of wirings for applyong the plurality of display electrodes with a voltage,

wherein the plurality of wirings comprises a laminated structure composed of a transparent conductive layer formed of the same layer as that of the display electrodes, and a metal layer fabricated of a metal having an electrical resistance lower than that of the transparent conductive layer.

2. The display device substrate according to claim 1, wherein the display electrode comprises a laminated structure composed of a transparent conductive layer, and a metal layer fabricated of a metal having an electrical resistance lower than that of the transparent conductive layer.

3. The display device substrate according to claim 2, wherein the metal layer in the display electrode is narrower in width than the transparent conductive layer.

4. The display device substrate according to claim 1, wherein the display electrode comprises the laminated structure of the transparent conductive layer and the metal layer, and wherein the metal layer has an aperture partially opened in the laminated structure.

5. The display device substrate according to claim 1, wherein the wirings are routed from the ends of the respective display electrodes along the peripheral portion of the display device substrate.

6. A liquid-crystal device encapsulating a liquid crystal between a pair of substrates, the device comprising the display device substrate according to claim 1 as at least one of the pair of substrates.

7. A liquid-crystal device comprising: the display device substrate according to claim 4; a counter substrate opposed to the display device substrate; and a liquid-crystal layer encapsulated between the display device substrate and the counter substrate, wherein the liquid-crystal device has a transmissive display function using the aperture of the metal

layer as a light transmissive section and a reflective display function using the region of the metal layer as a light reflective section.

8. Electronic equipment comprising:

the liquid-crystal device according to claim 7 as display means.

9. A manufacturing method for manufacturing the display device substrate according to claim 1, the manufacturing method comprising:

a transparent conductive layer fabrication step for fabricating a transparent conductive layer on the display device substrate;

a metal layer depositing step for depositing a metal layer on the transparent conductive layer; and

an etching step for concurrently etching the transparent conductive layer and the metal layer.

10. The manufacturing method for manufacturing the display device substrate according to claim 1, the manufacturing method comprising:

a transparent conductive layer fabrication step for fabricating a transparent conductive layer on the display device substrate;

a metal layer depositing step for depositing a metal layer on the transparent conductive layer;

a first etching step for concurrently etching the transparent conductive layer and the metal layer using a first photoresist film; and

a second etching step for etching only the metal layer using a second photoresist film, wherein the second photoresist film having a predetermined pattern is created by subjecting the first photoresist film to exposure and development processes.

11. The manufacturing method for manufacturing a display device substrate according to claim 10, wherein the metal layer in the display electrode is etched through the second etching step so that the metal layer is left on only the edge portion of the transparent conductive layer.

12. The manufacturing method for manufacturing a display device substrate according to claim 10, wherein the metal layer

in the display electrode is etched through the second etching step so that the metal layer has an aperture on the transparent conductive layer.

13. A liquid-crystal device comprising a pair of display device substrates, and a liquid crystal encapsulated between the display device substrates,

wherein one of the pair of display device substrates comprises a plurality of pixel electrodes, and a plurality of two-terminal-type switching elements, each connected to the respective pixel electrode,

the other of the pair of display device substrates comprises a plurality of display electrodes arranged in stripes to be opposed to the plurality of pixel electrodes, and wirings respectively connected to the display electrodes,

the plurality of display electrodes comprises a transparent conductive layer, and

the wirings comprise a transparent conductive layer formed of the same layer as that of the display electrodes, and a metal layer fabricated of a metal having an electrical resistance lower than that of the transparent conductive layer.

13. A liquid-crystal device comprising a pair of display device substrates, and a liquid crystal encapsulated between the display device substrates,

wherein one of the pair of display device substrates comprises a plurality of pixel electrodes, and a plurality of three-terminal-type switching elements, each connected to the respective pixel electrode,

the other of the pair of display device substrates comprises a plurality of display electrodes arranged in stripes to be opposed to the plurality of pixel electrodes, and wirings respectively connected to the display electrodes,

the plurality of display electrodes comprises a transparent conductive layer, and

the wirings comprise a transparent conductive layer formed of the same layer as that of the display electrodes, and a metal layer fabricated of a metal having an electrical resistance lower than that of the electrically transparent layer.